



# City of Norman, OK

Municipal Building  
Council Chambers  
201 West Gray  
Norman, OK 73069

## Master

**File Number: K-1213-92 CHG #1**

**File ID:** K-1213-92 CHG #1      **Type:** Contract      **Status:** Consent Item

**Version:** 1      **Reference:** Item No. 20      **In Control:** City Council

**Department:** Utilities Department      **Cost:**      **File Created:** 06/12/2014

**File Name:** Accept High Pressure Plane Waterline Improvements      **Final Action:**

**Title:** CHANGE ORDER NO. ONE TO CONTRACT K-1213-92: BY AND BETWEEN THE NORMAN UTILITIES AUTHORITY AND MATTHEWS TRENCHING COMPANY, INC., DECREASING THE CONTRACT AMOUNT BY \$44,016 FOR A REVISED CONTRACT AMOUNT OF \$1,212,208.50; EXTENDING THE CONTRACT BY 69 CALENDAR DAYS FOR THE HIGH PRESSURE PLANE WATER LINE IMPROVEMENTS; AND FINAL ACCEPTANCE OF THE PROJECT.

**Notes:** ACTION NEEDED: Acting as the Norman Utilities Authority, motion to approve or reject Change Order No. One to Contract No. K-1213-92 with Matthews Trenching Company, Inc., decreasing the contract amount by \$44,016 for a revised contract price of \$1,212,208.50 and extending the contract by 69 calendar days; and, if approved, authorize the execution thereof, accept the project, and direct final payment to Matthews Trenching Company, Inc.

ACTION TAKEN: \_\_\_\_\_

**Agenda Date:** 06/24/2014

**Agenda Number:** 20

**Attachments:** HighPressurePlaneWithProposedImprovements, Change Order No. 1 K-1213-92

**Project Manager:** Mark Daniels, Utilities Engineer

**Entered by:** mark.daniels@normanok.gov

**Effective Date:**

### History of Legislative File

Version:	Acting Body:	Date:	Action:	Sent To:	Due Date:	Return Date:	Result:

### Text of Legislative File K-1213-92 CHG #1

Body

**BACKGROUND:** The High Pressure Plane Waterline Improvements projects (projects WA0131 and WB0131) installed waterline to serve the southern and northern areas of the high pressure plane (HPP). The improvements will provide a more sustainable water pressure with less pressure fluctuation during periods of peak demand.

Professional Engineering Consultants (PEC) was hired to perform design and modeling services under Contract K-0607-122. PEC also provided geotechnical exploration, surveying and limited construction administrative services during construction of the HPP improvements. The Oklahoma Department of

Environmental Quality (ODEQ) approved the design plans on February 7, 2013.

The HPP Waterline Improvements include approximately 3,200 feet of 24-inch waterline between the Water Treatment Plant (WTP) and 24th Avenue NE, and 5,900 feet of 16-inch waterline along Robinson between the WTP and 36th Avenue NE, and then south to Alameda (see map). The 16-inch waterline provides a second feed to the southern portion of the HPP (Alameda Plaza, Meadowwood Estates, Summit Lakes, and Royal Oaks subdivisions). The 24-inch waterline feeds the northern portion of the HPP (Deerfield, Hall Park, Hallbrooke, High Meadows, Lakecrest, Park Hill, Park Place, Queenston, Shawdowlake and Sonoma Park).

The advertisement for bids was published in the Norman Transcript and bids were received from six contractors on February 21, 2013. Matthews Trenching Company, Inc. (Matthews) of Oklahoma City was the low bidder at \$1,256,224.50. On March 12, 2013, the Norman Utilities Authority (NUA) authorized award and approved Contract K-1213-92 with Matthews in the bid amount. The contract time began March 25, 2013 and was scheduled to be complete by October 21, 2013.

**DISCUSSION:** Sodding and other cleanup work has been proceeding since substantial completion on January 28, 2014 when all waterlines were placed into service. Final cleanup is now complete and acceptable to the Department of Utilities.

During the project construction, two change proposals resulting in a marginal cost increase of \$4,545 were approved administratively by staff. Additionally, the final reconciliation of "as-bid" to "as-built" quantities was quantified at project completion, resulting in a cost reduction of \$48,561. Thus, Final Change Order No. 1 includes a net deduct of \$44,016 and a contract time extension of 69 calendar days to extend the contract completion date to January 28, 2014.

The specifics of each change proposal are described below:

Change Proposal No. 1: During submission and approval of materials early in the project, it became clear that utilizing 16-inch and 24-inch gate valves would substantially delay the project. For this reason, and to obtain a cost savings, Matthews was requested to provide a cost proposal for utilizing butterfly valves in lieu of large diameter gate valves. As shown in the Change Proposal No. 1 (Attachment 1 to the change order), a cost savings of \$28,000 results by substituting twelve butterfly valves for twelve large diameter gate valves.

Change Proposal No. 2: This change proposal includes piping changes near the point of connection to the high service pumps at the Water Treatment Plant (WTP) which deliver water into the HPP. The changes are generally described below and detailed in Attachment 2 to the change order:

1. The bore and encasement for the 24-inch waterline crossing Robinson onto the WTP site was extended by 14 feet from 64 feet to 78 feet to avoid unknown utilities on the north side of Robinson. The unit price for installing 40-inch steel casing and installing 24-inch piping is \$590 per foot for a cost increase of \$8,260.
2. After additional study, the proposed interconnection between the new and existing 24-inch and 16-inch waterlines was modified to better fit field conditions and replace additional old piping. The valve vault was eliminated and the connection locations adjusted to better align with the Robinson bore, allow connection of an existing 10-inch water well line, extend the new piping into the existing flow metering vault, and include additional valves for better operational control.

As shown in Attachment 2, a cost increase of \$32,545 was approved by staff. The majority of the cost adjustments were based on existing unit prices but several new unit prices were negotiated with the contractor. A fifteen calendar day contract time extension was also approved to account for delays negotiating the changed work scope and acquiring new materials.

Change Proposal No. 3: As shown in Attachment 3, Change Proposal No, 3 reconciles "as-bid" quantities as adjusted by change proposals 1 and 2 to "as-built" quantities. Several quantity adjustments are included but the most significant changes were a result of the following:

1. The length of 24-inch piping installed was reduced by 151 feet for a reduction of \$12,986.

2. The length of 24-inch bore and encasement was increased by 42 feet for an increase of \$24,780; the majority of this increase was needed to prevent damage to masonry wall and signage at the entry into Frost Creek Estates subdivision.
3. A total of seven valves were added for better distribution system control for a combined increase of \$18,050.
4. The overall number of fittings utilized was reduced and resulted in a combined reduction of \$47,250.
5. Staff had anticipated that five homeowners might connect to the new distribution system; however, no connections were made resulting in a combined reduction of \$29,250.
6. The quantity of Bermuda sod installed was almost doubled to reduce the potential for soil erosion for an increase of \$17,000.

The net effect of the three change proposals is a decrease of \$44,016 or about 3.5% of the original contract amount. Upon approval of Change Order No. 1, the contract amount will be decreased from \$1,256,224.50 to \$1,212,208.50 and contract completion date extended by 69 calendar days to January 28, 2014. Staff recommends approval of Final Change Order No. 1, acceptance of the project and authorization to make final payment of \$28,952.09 to the contractor.

**RECOMMENDATION 1:** Staff recommends the NUA approve Final Change Order No. 1 with Matthews Trenching Company, Inc. reducing the contract amount by \$44,016 to \$1,212,208.50 and extending the contract completion date to January 28, 2014.

**RECOMMENDATION 2:** Staff also recommends that the NUA accept the High Pressure Plane Waterline Improvement projects and authorize final payment in the amount of \$28,952.09 to the contractor.